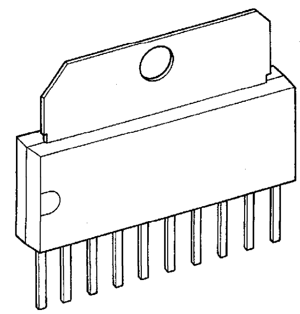
TOSHIBA BIPOLAR LINEAR INTEGRATED CIRCUIT SILICON MONOLITHIC

TA8464K

DUAL POWER OPERATIONAL AMPLIFIER

The TA8464K is a dual power operational amplifier with the output current 1.2A (PEAK).
This amplifier is usable for CD player arm driver, brushed motor forward / reverse rotation control driver, and FDD / HDD voice coil motor.
Furthermore, this amplifier is best suited for LDP focus tracking actuator driver because of its high through rate.



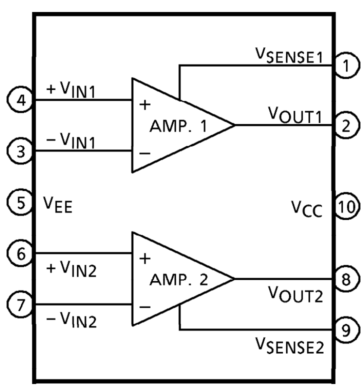
HSIP10-P-2.54

Weight : 2.47g (Typ.)

FEATURES

- Provided with a Current Limiter.
- High Output Current : $I_{O\ (PEAK)} = 1.2A$
- Internal Phase Compensation Type.
- Less Crosstalk : $C_T = 55dB$ (Typ.)
- High Slew Rate : SR = 1.0V / μs (Typ.)

BLOCK DIAGRAM



PIN FUNCTION

PIN No.	SYMBOL	FUNCTIONAL DESCRIPTION
1	V_{SENSE1}	AMP. 1 output current detective terminal
2	V_{OUT1}	AMP. 1 output terminal
3	$-V_{IN1}$	AMP. 1 input terminal (−)
4	$+V_{IN1}$	AMP. 1 input terminal (+)
5	V_{EE}	Negative-side voltage supply terminal
6	$+V_{IN2}$	AMP. 2 input terminal (+)
7	$-V_{IN2}$	AMP. 2 input terminal (−)
8	V_{OUT2}	AMP. 2 output terminal
9	V_{SENSE2}	AMP. 2 output current detective terminal
10	V_{CC}	Positive-side voltage supply terminal

MAXIMUM RATINGS (Ta = 25°C)

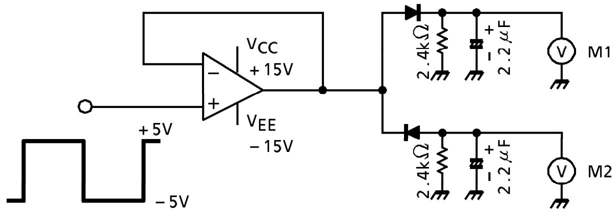
CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	V_{CC}, V_{EE}	±18	V
Output Current	$I_{O\ (PEAK)}$	1.2	A
Power Dissipation	P_D	12.5 (Note)	W
Operating Temperature	T_{opr}	−30~75	°C
Storage Temperature	T_{stg}	−55~150	°C

(Note) Tc = 25°C

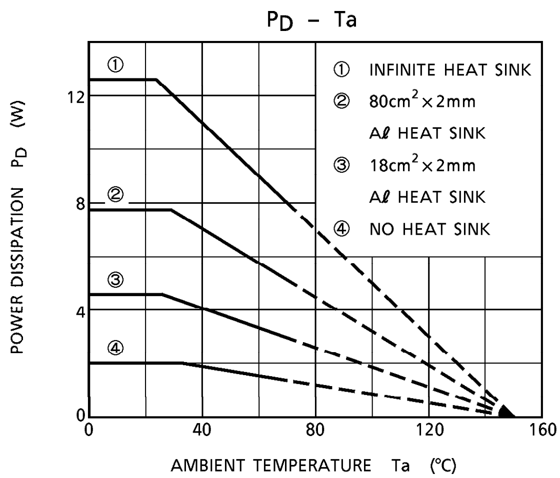
ELECTRICAL CHARACTERISTICS (Unless otherwise specified, V_{CC} = 15V, V_{EE} = −15V, Ta = 25°C)

CHARACTERISTIC		SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current		I_{CC}	—	—	—	17	25	mA
Input Offset Current		I_{IO}	—	—	—	3	100	nA
Input Bias Current		I_I	—	—	—	98	300	nA
Input Offset Voltage		V_{IO}	—	—	—	0	7	mV
Maximum Output Voltage	Upper	V_{OH}	—	V_{CC} = ±15V, I_O = 300mA	12.2	13.3	—	V
	Lower	V_{OL}			−12.2	−13.3	—	
	Upper	V_{OH}	—	V_{CC} = ±6V, I_O = 1A	2.0	3.9	—	V
	Lower	V_{OL}			−2.0	−4.0	—	
Open Loop Gain		G_{VO}	—	—	—	80	—	dB
Input Common Mode Voltage Range		CMR	—	—	±13	±14	—	V
Common Mode Rejection Ratio		CMRR	—	V_{IN} = −10~10V	90	113	—	dB
Supply Voltage Rejection Ratio		SVRR	—	V_{CC} = $-V_{EE}$ = 6~15V ± 1V	—	65	100	μV / V
Slew Rate		SR	—	—	—	1.0	—	V / μs
Output Limiting Current		I_{SC}	—	R_{SC} = 0.68Ω	0.8	1.0	—	A
Crosstalk		C_T	—	V_{IN} = −14~14V	—	55	—	dB
Slew Rate Symmetry		SR'	1	INPUT : Duty (49 : 51 / 51 : 49) Square wave	—	0.02	1.0	V

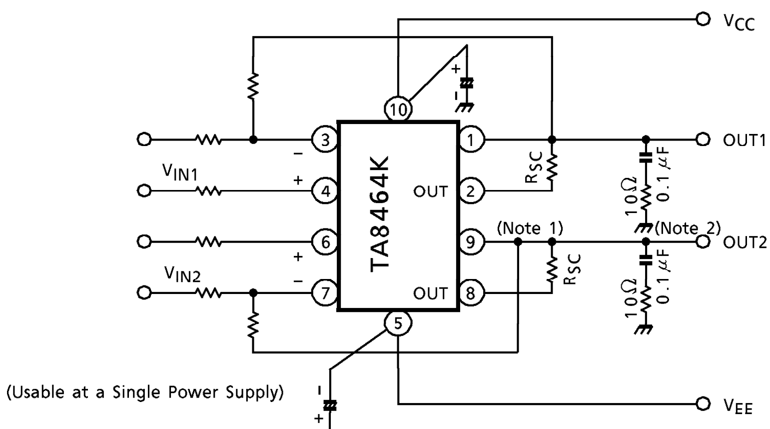
TEST CIRCUIT 1 Slew rate, symmetry SR'



f = 38kHz
Duty : 49 : 51 and 51 : 49
Measured Value M = M1 + M2



APPLICATION CIRCUIT 1

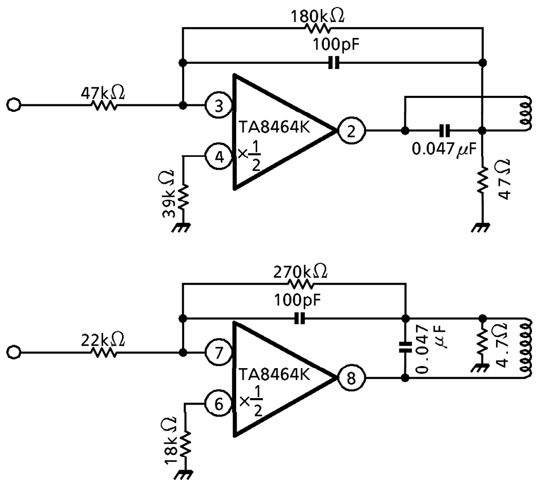


(Note 1) $I_{SC} \doteqdot \frac{0.7\ (V)}{R_{SC}\ (\Omega)}$ (A)

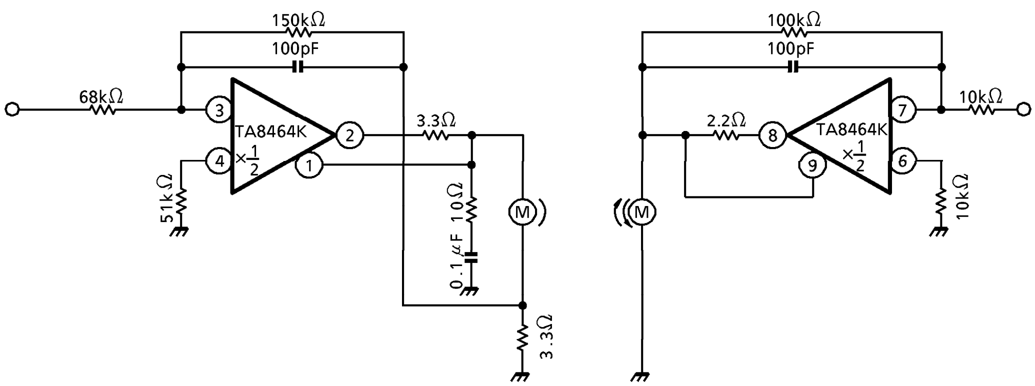
(Note 2) If crosstalk is recognizable remarkably in applications above 80kHz, change a capacitor to one having a value of about 0.33μF as a compensating circuit. Further, no resistor is needed in this case.

(Note 3) Utmost care is necessary in the design of the output line, V_{CC} and GND line since IC may be destroyed due to short-circuit between outputs, air contamination fault, or fault by improper grounding.

APPLICATION CIRCUIT 2

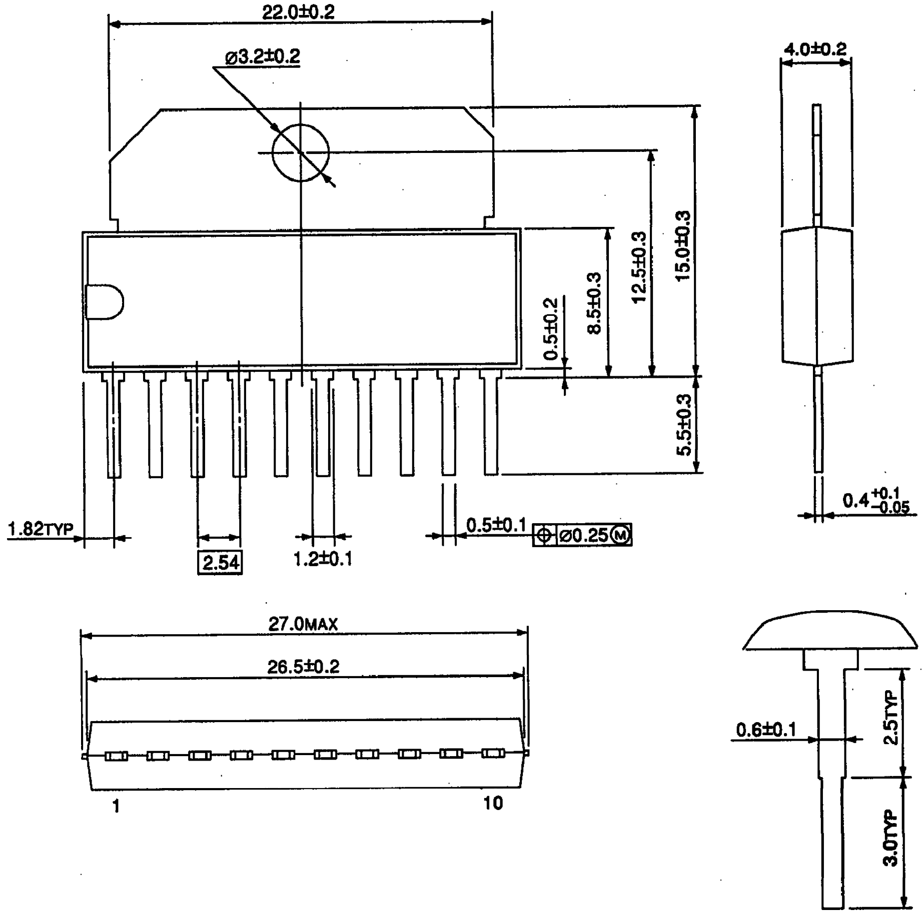


APPLICATION CIRCUIT 3



OUTLINE DRAWING

HSIP10-P-2.54 Unit : mm



Weight : 2.47g (Typ.)